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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of) GEN Docket No. 90-314
) ET Docket No. 92-100
Amendment of the Commission's)
Rules to Establish New Personal) RM-7140, RM-7175, RM-7617.
Communications Services) RM-7618, RM-7760, RM-7782
) RM-7860, RM-7977, RM-7978
) RM-7979, RM-7980
TO: The Commission

REPLY COMMENTS OF
TELEPHONE & DATA SYSTEMS, INC.

January 8, 1993

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SUMMARY

We support the allocation of 2 GHz spectrum to permit grant of five 20 MHz PCS system licenses per service area, use of "local" MSA/RSA service area boundaries, open eligibility including LECs and cellular operators within and outside their exchange or cellular service areas, a common carrier PCS regulatory classification and use of lottery selection procedures subject to stringent requirements to deter speculative filings.

Of the approximately 150 comments filed, there is very substantial support for adoption of our recommendations or closely comparable proposals. Our Reply Comments describe this support and respond to the arguments of others who oppose our recommendations:

1. Number of PCS Providers. More than fifty percent of all commenters discussing this issue have expressed support for granting five or more PCS licenses per market. The Commission should not limit the PCS providers per market to a number fewer than five to protect the profit potential of individual licenses, to avoid spectrum sharing conflicts with incumbent private microwave users, to achieve theoretical trunking efficiencies, or to reserve excessive amounts of spectrum for non-licensed PCS services.

2. Amount of Spectrum Per Licensed System. Approximately fifty-five percent of those commenting on this issue supported 20 MHz channelization per provider for licensed PCS Service. This amount of spectrum is adequate to meet spectrum needs in a five provider market. The Commission should not adopt channel block sizes to larger than 20 MHz to compensate for capacity restrictions encountered because of spectrum sharing with incumbent microwave users, to assure potential profitability of individual PCS operations or to meet unjustified claims for spectrum requirements. Combinations of different channel block sizes should also be rejected.

3. Licensed PCS Service Area. Over sixty percent of commenters on this issue supported use of "local" MSA/RSA service areas. Adoption of other service area sizes, such as nationwide, Major Trading Area, LATA, Basic Trading Area, or combinations of different service area sizes, diminish the unique advantages arising from exclusive use of "local MSA/RSA service areas, are unsuitable for PCS licensing and are counterproductive to the achievement of the Commission's goals in these proceedings.

4. Local exchange Participation. An overwhelming majority of all comments filed on this issue, more than sixty-five percent

supported full LEC eligibility within and outside existing exchange areas. Contrary to the arguments of some, the fundamental objectives of these proceedings will foster publicly beneficial deployment of PCS technologies if LECs are permitted to use these technologies to meet the needs of the public they serve. LECs should not be required to use cellular spectrum for this purpose.

5. Cellular Carrier Participation. More than fifty-five percent of the comments on this issue supported full cellular eligibility within and outside existing cellular service areas. There are important benefits from cellular operators being permitted to hold PCS licenses in their cellular service areas because of the economies made possible by integrated cellular/PCS operations. The characteristics of existing and planned uses of cellular spectrum limit the cost, quality and scope of PCS-type service offerings which reasonably can be provided via cellular spectrum. In a five PCS provider market, cellular eligibility restrictions are unnecessary and counterproductive.

6. PCS Selection Methods. Lottery selection is supported by more than fifty-five percent of the commenters addressing this issue. Auction mechanisms and comparative hearings should be rejected as contrary to the Commission's goals here.

The "national consortium" and "franchising" proposals of MCI and APC respectively are unjustified and unnecessary and raise serious issues regarding the possible unlawful delegation of the Commission's regulatory responsibilities.

7. PCS Regulatory Status. Forty percent of those filing comment on this issue supported the common carrier regulatory classification for all PCS services. The filings of four state regulatory commissions, the NARUC and many others support common carrier status on statutory and many other grounds. The arguments for a private carriage classification do not provide the factual record or the legal rationale to justify such classification and the ousting of state jurisdiction.

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TO: The Commission

REPLY COMMENTS OF
TELEPHONE & DATA SYSTEMS, INC.

Telephone and Data Systems, Inc., on behalf of itself and its subsidiaries (collectively "TDS"), by its attorneys, submits its reply comments responding to comments filed regarding the Commission's Notice of Proposed Rulemaking and Tentative Decision (NPRM") in the above-captioned proceeding¹.

INTRODUCTION

In our Comments we presented a series of recommendations designed to provide the most rapid, widespread and efficient development possible of the full potential of 2 GHz broadband PCS technologies. We believe that the Commission will best achieve

¹ A list of parties filing Comments in these proceedings, including the abbreviated names used for reference in these Reply Comments, is Attachment A hereto.

the fundamental guidelines described in its NPRM by establishing a structure for the licensing of PCS providers as follows:

- (a) Frequencies should be allocated to permit grant of five 20 MHz PCS system licenses per service area;
- (b) 2 GHz service areas should be defined in "local" service areas corresponding to MSA/RSA boundaries;
- (c) Eligibility to hold PCS licenses should be open to all potential applicants. Established service providers, including LECs and cellular licensees, should not be excluded;
- (d) 2 GHz broadband PCS should be given a common carrier regulatory classification; and
- (e) Lottery selection procedures should be used subject to stringent requirements to deter the filing of applications by speculators.

Of the approximately 150 comments filed with respect to the Commission's 2 GHz broadband proposals, there was widespread support for adoption of the same or closely comparable approaches to the recommendations outlined here. We include summary results of these filings in the following paragraphs to give some indication of the strong support for adoption of the regulatory structure which we propose.

Number of Licensed Providers

Slightly more than 50% of those commenting, including Federal government bodies, state public utility commissions, small business interests, cellular operators, ESMR/SMR operators and telephone companies supported five or more providers. These commenters include Alltel, AMTA, AT&T, Bell Atlantic, BellSouth, CTIA, Centel, Chesnee Tel., DOJ, Fleet Call, GTE, Lincoln Tel., McCaw, Sec. of Defense/National Comm. System, NRTA/OPASTCO, NTCA, NTIA, NYDPS, NYNEX, PDM/PCS, PaPUC, Piedmont Rural Tel., Rochester Tel., Rock Hill Tel., Roseville Tel., Rural Cellular, SBA, SC Tel.Assn., SNETCO, USTA and Vanguard.

Amount of Spectrum Per Licensed System

Approximately fifty-five percent of those commenting on this issue supported 20 MHz channelization for licensed service. Here again the commenters included governmental and regulatory bodies such as the DOJ, the SBA, and the PaPUC and a broad cross-section of telephone, cellular, ESMR, CATV, small business and independent businesses. These businesses (and associations) include Alltel, AT&T, Bell Atlantic, BellSouth, CTIA, Centel, Century, Chesnee Tel., Cincinnati Bell, COMSAT, GTE, Lincoln Tel., McCaw, Piedmont Rural Tel., PowerSpectrum, Rochester Tel., Rock Hill Tel., SC Tel. Assn., SNETCO, SWB, Telmarc, USTA and Vanguard.

Licensed PCS Service Area

Over sixty percent of the commenters on this issue supported use of MSA/RSA-defined service areas. This support reflects views of Federal government bodies including the DOJ, and the SBA, several public utility commissions, including the NYDPS, and the PaPUC, CATV, ESMR, SMR, cellular, telephone and other independent businesses. The full list of the many businesses and associations filing supporting comments includes Adelphia, Alltel, AMTA, BellSouth, Centel, Century, Chesnee Tel., Cincinnati Bell, Concord Tel., Fleet Call, Florida Cellular, GTE, Home Tel., Hughes Network, Lincoln Tel., McCaw, NRTA/OPASTCO, NTCA, NYNEX, Ohio LINX, Palmetto Rural Tel., Pass Word, Piedmont Rural Tel., Point Comm., Rochester Tel., Rock Hill Tel., Roseville Tel., Rural Cellular, Rural Independent, Small Rural VA Telcos., SC Tel. Assn., SNETCO, SWB, Sprint, Taconic, Tel/Logic, USTA, Vanguard and Viacom.

Local Exchange Carrier Participation

An overwhelming majority of all comments filed on this issue, more than sixty-five percent, also supported full LEC eligibility within and outside existing exchange areas. The supporters of open eligibility for LECs include the SBA, the Illinois Commerce Commission, the PaPUC, the RBOCs, over twenty

rural and independent telephone companies, other businesses and a number of national and regional associations representing a broad range of telephone and non-telephone telecommunications providers, including NRTA/OPASTCO, NTCA, SC Tel. Assn., Telocator, and USTA.

Cellular Carrier Participation

More than fifty-five percent of all comments filed on this issue supported full cellular eligibility within and outside existing cellular service areas. The supporters of such open eligibility for cellular operators include the SBA, state public service commissions such as the Illinois Commerce Commission and the NYDPS, RBOCs, GTE, numerous rural and independent telephone companies, cellular operators such as McCaw and many others, other businesses and national associations of telecommunications providers such as CTIA and Telocator.

PCS Selection Methods

Lottery selection was supported by more than fifty-five percent of the commenters addressing this issue. These supporters include the SBA, the Illinois Commerce Commission, AT&T, Sprint, RBOCs, CATV operators including Comcast, Time Warner and Viacom, numerous rural and independent telephone companies, cellular operators including McCaw, Vanguard, and many others, numerous proposed independent and start-up PCS providers, equipment manufacturers, including Qualcomm and ROLM, and national associations of telecommunications providers such as CTIA, NRTA/OPASTCO, NTCA and Telocator.

Common Carrier Regulatory Status

Common carrier regulatory classification for all PCS service offerings was supported by forty percent of those commenting on this issue including the California PUC, the NYPDS, the PaPUC, the Wisconsin PCS, NARUC and many others. Supporters numbered more than three times the number of commenters filing in support private carriage.

The Commission already has an adequate record to support adoption of all of the recommendations we have offered based upon the numerous comments referenced above. In the remainder of these comments we review comments supproting the adoption of our

recommendations and respond to the recommendations and arguments of other commenters whose proposals would diminish opportunities for the development of a broad range of innovative and diverse PCS services, curtail competitive entry, decrease incentives for rapid deployment of PCS, particularly in rural and sparsely populated areas, and undercut the Commission's objectives that PCS technologies should be developed to support universal public telecommunications. To assist review, we have divided our responses into the following seven broad subject areas: Number of Licensed PCS Providers; Service Area Size; Channelization; Local Exchange Carrier Participation; Cellular Carrier Participation; Licensed PCS Selection Methods; and PCS Regulatory Status.

SECTION I - NUMBER OF LICENSED PCS PROVIDERS

THE COMMISSION SHOULD ALLOCATE PCS SPECTRUM FOR FIVE PCS PROVIDERS PER SERVICE AREA

There is widespread support for granting as many licenses as can be accommodated by available spectrum, with almost all analyses concluding that it is better to err on the size of "too many" licenses rather than "too few" licenses.

As demonstrated in the economic analyses in Professor Steven S. Wildman's statement (attached to TDS's Comments), five licenses per area are better than four or three.² More licenses will

² Wildman at 36-37

facilitate faster and more effective market experimentation with alternative approaches to PCS and managers of PCS systems. The result will be more innovation, competition, opportunities for small businesses, diversity to meet consumer demands, and efficiency. The administrative costs associated with granting more licenses will be far less than the public benefits.

Along the same lines as TDS's recommendation, the NTIA favors granting "if possible four or five" PCS licenses with a given geographic area,³ which will best allow market forces to determine an efficient number of service providers in a market. Both NTIA and DOJ favor erring on the side of more, rather than fewer, service providers. The cost of aggregating licenses and operations through market transactions is far less than the potential harm to consumers from less than fully competitive markets caused by too few licenses.⁴ Moreover, David Reed of the FCC's Office of Plans and Policy concludes that it is better to grant a lot of PCS licenses in an area, even if some are unused, than to grant only a few. The additional licenses spur competition and innovation, minimize delay in infrastructure development, and allow smaller firms to participate in the PCS marketplace.⁵ Reed's model shows that these benefits outweigh

³ NTIA Comments at 7.

⁴ Id. at 6-7; DOJ Comments at 15.

⁵ Reed at 51-53. See also Clinton, Technology: The Engine of Economic Growth -- A National Technology Policy for America
(continued...)

the relatively small lost economies of scale associated with up to six carriers per area.

Two other economic analyses support TDS's recommendation: Professor Alfred Kahn (statement attached to Bell Atlantic's Comments) observes that considerations of competition and economies of scope favor more licenses per area and erring on the side of too many licenses.⁶ Drs. Jonathan Byrnes and Ralph Townsend (statement attached to NYNEX's Comments) also recommend five licenses per area in order to promote competition and speedy deployment.⁷

Only APC filed an economic statement which favors erring on the side of issuing few licenses, claiming that "too many" PCS licenses would inhibit or delay the development of PCS technology.⁸ This assertion about technology development is unsupported by economic studies and contrary to the conclusions of Professor

⁵(...continued)
at 12 (Sept. 21, 1992) ("A healthy and growing small-business sector is essential to America's economic well-being...My technology policies will recognize the importance of small and medium-sized business to America's economic growth...."); W. Marshall & M. Schram (eds.), Mandate for Change 3, 76 (1992) ("The third pillar of Enterprise Economics is a new strategy to enhance competition and liberate markets." "President Clinton must provide the nation's entrepreneurs with a more supportive business climate. The entrepreneurial spirit is America's most powerful competitive edge.").

⁶ Kahn at 7-9.

⁷ Byrnes and Townsend at 29.

⁸ Lexecon statement at 17-18.

Wildman (which are supported by numerous economic studies of innovation) and the other statements cited above.

(a) The Commission Should Not Limit The Number Of PCS Providers In Each Service Area To Protect The Profit Potential Of Individual Licensees.

We strongly oppose the arguments of APC, Associated PCN, Ericsson, Omnipoint, PCN America, Pertel, Qualcomm, SWB, Time Warner, Viacom and others⁹ for the Commission to limit to two or three the number of licensed PCS providers in each service area to preserve the profit opportunities for individual PCS licensees.

As described in the Comments of NTIA, DOJ and Secretary of Defense/National Communication System, the Commission should be most concerned that assigning too few PCS licenses in each service area will predictably lead to high rates for service and other adverse characteristics of less than fully competitive markets. Specifically DOJ states:

The Commission should not be unduly concerned, at the initial allocation stage, that it might create too many licenses out of the 110 MHz it has proposed to allocate to PCS, so long as the spectrum allocated to each licensee is sufficient. If more licenses are issued than systems are built (because, for example, entrepreneurs cannot persuade investors that a given area can support more than a certain number of PCS systems), the existence and availability of the remaining unused licenses creates the competitive con-

⁹ Cellular Service, CELSAT, Century Cellunet, Comsat, Interdigital Comm., MCI, Northern Telecom, Pacific Telesis, PCN Communications, PCN/NY, ROLM, Sprint and Telmarc.

straint of potential entry, which will tend to encourage competition among the incumbents...The Department thus strongly disagrees with the suggestion of commenters that "the number of licensed providers should be limited due in part to the cost of developing a PCS infrastructure."¹⁰

In any event the Commission should not be speculating about the economic viability of any provider furnishing any or all of the "family" of PCS services. As many experts have observed, PCS technologies can be used to furnish any of a number of services either as "Existing PCSs" or as "Emerging PCSs".¹¹ Existing providers of landline telephone, coin-operated telephone, dispatch, ESMR, SMR, mobile data, paging, cellular, cordless telephone and other services all are possible applicants for PCS licenses. Independent, non-affiliated providers are also expected to apply. The economic viability of the operations of any PCS licensee necessarily changes depending upon management quality, the extent of available financial resources, the service offering(s) involved, risk factors such as the relationship of the proposed PCS service offering to any existing business of the PCS licensee, market demand and other factors. The Commission is in no position to evaluate the complex interplay of the foregoing factors, and should not attempt to do so. The Commission should

¹⁰ DOJ Comments, at 15

¹¹ See generally Telocator PCS Section, Marketing and Consumer Affairs Committee, Service Description Subcommittee, PCS Service Description, July 22, 1992 (Draft)

leave to customers in the marketplace the determination whether individual PCS operations will be profitable or not.¹²

(b) The Commission Should Not Limit The Number Of PCS Providers To Facilitate Sharing Spectrum With Incumbent Microwave Users In The 1850-1990 MHz Band.

We oppose the arguments of Comsearch, MCI and others to limit the number of PCS providers in each service area so that added spectrum can be made available to each PCS provider to avoid spectrum sharing conflicts with incumbent private microwave users.

The Commission is considering procedures in its Emerging Technologies docket (ET 92-9) to provide mechanisms for the transition of existing microwave users to other bands. The pace with which this transition will take place will be dictated by numerous factors including the number and location of incumbent private microwave users, the deadlines to be adopted in that docket, the commitment of PCS and private microwave spectrum users to new spectrum, the interference avoidance attributes of each PCS licensee's system design, the priority which each PCS

¹² Contrary to the claims of SWB, the U.K. experience is relevant here but not for the reasons cited by SWB. We agree with the conclusion of Dr. Chris Doyle (BellSouth Comments, Appendix II) that this U.K. experience underscores the benefits, of adopting "local" MSA/RSA service areas, open eligibility, including LECs and cellular operators, flexible technical rules and broadly defined PCS service descriptions.

licensee places upon furnishing replacement facilities for protected private microwave users, among other matters.

It is not useful to speculate about the complex interplay of the foregoing factors in each PCS market. Some markets initially will have significant conflicts between PCS and incumbent private microwave operations. Others will have few, if any, such conflicts. Over time we expect that the transition procedures developed in the Commission's Emerging Technologies docket will successfully permit PCS spectrum uses to replace incumbent private microwave uses of the same spectrum. These procedures should be allowed to work. PCS licensees should have strong incentives voluntarily to resolve potential interference situations in their service areas through negotiations with private microwave users, adopting system designs which avoid harmful interference, and operating agreements with other PCS licensees to provide for mutually beneficial coverage if "preclusion zones" are encountered. Permanent allocations of added spectrum as proposed by Comsearch, MCI and others have not been shown to be necessary or appropriate and even could be counter-productive to the timely and efficient implementation of PCS technologies by limiting the number of PCS providers in each service area.

(c) MCI's Arguments Regarding Trunking Efficiencies Do Not Justify Diminished Competitive Opportunities.

The Commission should not limit the number of PCS licenses in any service area in order to achieve the marginal or theoretical trunking efficiencies which MCI argues will be made possible by awarding 40 MHz PCS spectrum blocks.

In arguing for a maximum of three providers, each with 40 MHz of spectrum, MCI ignores the critical importance of providing opportunities for numerous and diverse PCS providers in each service area. This proceeding is about creating consumer values, not theoretical engineering measures of efficiency. There is no adequate justification for limiting competitive entry below five providers, each with 20 MHz, in the interest of preserving theoretical opportunities for trunking efficiencies. There are simply too many unknown factors to take into consideration, including consumer benefits from the development of diverse service offerings, and price competition among numerous competitors, among many others, to assume at this early stage of PCS development, as MCI does, that theoretical trunking efficiencies should be a critical factor here.¹³

¹³ We do not foreclose the possibility that as the PCS industry matures, there could be aggregations of channels in particular markets. The Commission should address proposals for such aggregations on a case-by-case basis.

We also object to MCI's misuse of the term, "spectrum efficiency" in connection with its arguments. There is no reason to assume that three PCS providers per service area, each with 40 MHz of spectrum, will operate radio equipment with higher levels of "spectrum efficiency" than five providers each with 20 MHz spectrum.

(d) The Commission Should Reject The Claims Of Pacific Telesis That The Number Of licensed PCS Providers Should Be Limited To Provide 65 MHz Of Spectrum For Non-Licensed PCS Services.

We disagree with the Pacific Telesis's arguments that there should be no more than three licensed providers in each service area, each with 25 MHz for licensed services, in order to make available 65 MHz of spectrum for non-licensed services.

We support the rapid and cost-efficient deployment of non-licenses services, but we do not believe it is either necessary or justifiable to allocate 65 MHz of spectrum for non-licensed PCS if the effect of this is to diminish competitive opportunities for licensed PCS services. We propose 100 MHz of licensed PCS spectrum be allocated in the 1850-1990 MHz bands. This leaves as much as 40 MHz for non-licensed uses. Many commenters including Andrew, Apple, Hewlett-Packard, Northern Telecom and ROLM have suggested that a total of 40 MHz is adequate for non-

licensed services. The Commission could license five PCS providers in each service area, each with 20 MHz of spectrum and still provide allocate an adequate amount of spectrum for non-licensed services.

SECTION II - SERVICE AREA SIZE

PCS SERVICE AREAS SHOULD BE DEFINED IN TERMS OF "LOCAL" SERVICE AREAS CORRESPONDING TO MSA/RSA BOUNDARIES

Most commenters agree with TDS's recommendation for small license areas. Professor Wildman favors MSAs/RSAs; he explains that small license areas permit greater experimentation with alternative approaches to PCS services and technologies, and allow for the implementation of PCS infrastructure and services that best meet the unique needs of individual communities. According to Wildman, the transaction costs associated with some aggregation of small license areas are likely to be far outweighed by these public benefits. Additionally, Wildman finds that the clustering of cellular markets does not evidence benefits from large PCS license areas, and market failures are likely to impede the efficient disaggregation of large PCS license areas which are too large.¹⁴

Economic analyses filed by the DOJ and BellSouth also support MSAs/RSAs. The DOJ finds that smaller service areas would increase the number of potential competitors and innova-

¹⁴ Wildman at 6-35

tors, decrease capital costs of entry, facilitate the development of niche services, increase the provision of service to less populated areas,¹⁵ and provide opportunities for operators with the intention, financial resources and expertise to develop services that meet what might be quite varied local consumer demand. The DOJ also concludes that there is not sufficient evidence of any greater efficiency of national PCS markets; and that local and regional firms are likely to create nationwide interoperable networks if customers' demand for roaming is sufficient.¹⁶ Along the same lines, three statements by economists filed by BellSouth support MSAs/RSAs to promote diversity in offerings and innovations, better meet the needs of local markets, speed service deployment (especially to less populated areas), promote universality, enhance competition, and increase the participation of small entrepreneurs.¹⁷

NTIA's preference for licenses based on 183 "economic areas" is based on several concerns about small license areas which are unsupported or could easily be avoided.¹⁸ The analyses by

¹⁵ See also B. Clinton and A. Gore, Putting People First: How We Can All Change America, 149 (1992) ("Encourage Small Businesses to Invest in Rural Areas and Inner Cities").

¹⁶ DOJ Comments at 17-23.

¹⁷ Gantt; Doyle; Schmalensee and Taylor at 21 ("We emphasize that clustering does not necessarily imply that the initial distributions of cellular licenses or the sizes of MSAs and RSAs are inefficient. Instead, economies of scale may be realized most efficiently by having small license areas and allowing the aftermarket to redistribute licenses geographically.").

¹⁸ NTIA Comments at 12-22

Wildman, DOJ and the statements filed by BellSouth effectively rebut these concerns. (1) Transaction costs -- the evidence does not support the notion that large service areas are more efficient; disaggregations are likely to be subject to market failures and more costly than aggregations; and transaction costs are small compared to the lost public benefits from more innovation; competition and market experience derived from small license areas. (2) Interoperability and dealing with multiple operators -- roaming agreements have been established in cellular services and will be established in PCS services if sufficient demand exists. (3) Delay in assigning licenses -- the Commission's rules could make PCS delays far shorter than cellular delays. NTIA correctly recognizes that large areas would inhibit the potential for development of diverse PCS offerings and impair competition between cellular and PCS services.

Statements by Drs. Charles Jackson and Kahn (filed by Bell Atlantic) claim public benefits from licensing large service areas which we believe will actually be harmful to consumers in the long run. As Professor Wildman explains, rapid selection of standards and coordination protocols by any nationwide licensee is likely to be inefficient because of the vast amount of innovation and market experimentation necessary in PCS.¹⁹

¹⁹ Wildman at 28-34.

(a) Contrary To The Arguments Of Bell Atlantic, MCI, PCN America, Time Warner And Others, Nationwide PCS Licensing Is Neither Necessary Nor Beneficial To Achieve The Commission's Objectives In This Proceeding.

We strongly disagree with the notion that the deployment of PCS technologies under nationwide licensing will lead to the system efficiencies and economies claimed by Bell Atlantic, MCI, PCN America, Time Warner and others. As described below, adoption of "local" MSA/RSA service areas rather than nationwide or regional areas is essential for the Commission to achieve its objectives in these proceedings.

The adverse impact of nationwide licensing in terms of undercutting the benefits of "local" MSA/RSA service areas is substantial. The number of PCS providers under nationwide licensing would be a small fraction of the number possible under "local" licensing. Fewer PCS licenses also means that the development of diverse and innovative PCS service offerings would also be greatly decreased. Opportunities for small business participation and for locally-based companies to participate would be eliminated. The deployment of PCS outside densely populated urban areas would be delayed. Even the availability of financing for start-up "local" PCS operations might be adversely affected by the threat of competition from nationwide providers.

Nor are the benefits claimed for nationwide licensed systems credible. We disagree with CELSAT that nationwide licensing is